

# Examiner's amendment

Appl. No. 09/955,248

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

Claim 1 (currently amended): A peritoneal dialysis solution including bicarbonate at a level of less than or equal to 30 mM/L, having a carbon dioxide partial pressure that is less than 60 mmHg and including ~~at least one a~~ weak acid at a level of between approximately 15 mEq/L and approximately 20 mEq/L selected from the group consisting of: lactate; citrate; isocitrate; cis-aconitase;  $\alpha$ -ketoglutarate; succinate; fumarate; malate; and oxaloacetate.

Claim 2 (original): The peritoneal dialysis solution of Claim 1 wherein bicarbonate is present in the solution at 25 mM/L.

Claim 3 (original): The peritoneal dialysis solution of Claim 1 wherein the carbon dioxide partial pressure of the solution is approximately the same as the carbon dioxide partial pressure of blood.

Claim 4 (original): The peritoneal dialysis solution of Claim 1 wherein the solution has a pH of approximately 7.0 to about 7.4.

Claim 5 (original): The peritoneal dialysis solution of Claim 1 wherein the weak acids have a pKa of < 5.0.

Claim 6 (currently amended): A peritoneal dialysis solution comprising:

Dextrose (hydrous) (g/dl)	1.5-4.25
Sodium (mEq/L)	100-140
Chloride (mEq/L)	70-110
Calcium (mEq/L)	0.0-4.0
Magnesium (mEq/L)	0.0-4.0
Bicarbonate (mEq/L)	20.0-30.0
Weak acid (mEq/L)	10.0-20.0

wherein the weak acid is ~~at least one acid~~ chosen from the group consisting of: lactate; citrate; isocitrate; cis-aconitase;  $\alpha$ -ketoglutarate; succinate; fumarate; malate; and oxaloacetate, the solution having a carbon dioxide partial pressure that is less than 60 mmHg.

Claim 7 (original): The peritoneal dialysis solution of Claim 6 wherein the solution has a pH of approximately 7.0 to about 7.4.

Claim 8 (original): The peritoneal dialysis solution of Claim 6 wherein the weak acids have a pKa of < 5.0.

Claim 9 (original): The peritoneal dialysis solution of Claim 6 wherein the carbon dioxide partial pressure of the solution is approximately the same as the carbon dioxide partial pressure of normal blood.

Claim 10 (currently amended): A peritoneal dialysis solution comprising:

Dextrose (hydrous) (g/dl)	1.5-4.25
Sodium (mEq/L)	100-140
Chloride (mEq/L)	70-110
Calcium (mEq/L)	0.0-4.0
Magnesium (mEq/L)	0.0-4.0
Bicarbonate (mEq/L)	20.0-30.0
Weak acid (mEq/L)	10.0-20.0

wherein the weak acid is ~~at least one acid~~ chosen from the group consisting of: lactate; citrate; isocitrate; cis-aconitase;  $\alpha$ -ketoglutarate; succinate; fumarate; malate; and oxaloacetate, and the solution has a carbon dioxide partial pressure that is substantially similar to the carbon dioxide partial pressure of a normal subject's blood and the solution has a pH of approximately 7.0 to about 7.4.

Claim 11 (currently amended): A method for correcting metabolic acidosis in a dialysis patient suffering or likely to suffer from same comprising the step of:

administering to a patient a peritoneal dialysis solution that has a bicarbonate level and carbon dioxide partial pressure that are substantially similar to that found in the <sup>normal persons</sup> <sup>patient's</sup> blood  
wherein the solution comprises:

Dextrose (hydrous) (g/dl)	1.5-4.25
Sodium (mEq/L)	100-140
Chloride (mEq/L)	70-110
Calcium (mEq/L)	0.0-4.0
Magnesium (mEq/L)	0.0-4.0
Bicarbonate (mEq/L)	20.0-30.0
Weak acid (mEq/L)	10.0-20.0

wherein the weak acid is ~~at least one acid~~ chosen from the group consisting of: lactate; citrate; isocitrate; cis-aconitase;  $\alpha$ -ketoglutarate; succinate; fumarate; malate; and oxaloacetate

Claim 12 (original): The method of Claim 11 including the step of administering to the patient a weak acid that is present in the solution in an amount that offsets the daily hydrogen production of approximately 1 mEq/kg/day.

Claim 13 (original): The method of Claim 12 wherein the weak acids have a pKa of < 5.0.

Claim 14 (original): The method of Claim 10 wherein the solution has a pH of approximately 7.0 to about 7.4.

Claim 15 (original): The method of Claim 11 wherein the solution does not include lactate.

Claim 16 (original): The method of Claim 12 wherein the weak acid is present in the solution at a level of approximately 10 to about 20 mEq/L.

to be normal biochemical intermediates of glucose metabolism. Preferably, the weak acids are chosen from the group consisting of: lactate; pyruvate; citrate; isocitrate; cis-aconitase;  $\alpha$ -ketoglutarate; succinate; fumarate; malate; and oxaloacetate. These acids can be

5 present either alone or in combination in the solution. Preferably, the weak acids are present at a level of approximately 10 to about 20 mEq/L. Preferably, the weak acid are present mainly as sodium salts. The weak acid

10 is present in an amount that would offset the daily metabolic hydrogen production of approximately 1 mEq/kg/day.

> In an embodiment, the peritoneal . . . . . does not include lactate. Pursuant to the present invention, any osmotic agent can be used in the solution. For example, dextrose, 15 <sup>1/24/94</sup> maltodextran, glycerol, polyglucose, polypeptides and ~~amino~~ amino acids can be used as the osmotic agent.

1/24/94 Preferably, the peritoneal dialysis solution, if it contains dextrose as an osmotic agent, has a general composition such as that set forth below:

20	Dextrose (hydrous) (g/dL)	1.5-4.25
	Sodium (mEq/L)	100-140
	Chloride (mEq/L)	70-110
	Calcium (mEq/L)	0.0-4.0
	Magnesium (mEq/L)	0.0-4.0
25	Bicarbonate (mEq/L)	20.0-30.0
	Weak acid (mEq/L)	10.0-20.0
	pH	7.0-7.4

30 Preferably, solutions containing an osmotic agent other than dextrose composition have the general composition: <sup>1/24/94</sup>

Osmotic agent ( <sup>mM</sup> <sub>osm</sub> /L)	1-200
Sodium (mEq/L)	100-140
Chloride (mEq/L)	70-130 110 <sup>1/24/94</sup>